

PANAMA CANAL AUTHORITY		VARIATION	PAGE 1 OF 3
1. REQUEST FOR PROPOSAL No.:	2. CONTRACT No.:	3. DATE:	
RFP-76161	CMC-221427	June 22, 2012	
		4. VARIATION No.:	
		41	

5. ISSUED BY:

PANAMA CANAL AUTHORITY
Employer's Representative
Locks Project Management Division
Building 740, Corozal
Panama, Republic of Panama

6. NAME AND ADDRESS OF CONTRACTOR (INCLUDE PHYSICAL & POSTAL ADDRESS)	7. CONTRACTOR'S TELEPHONE NUMBER:
Grupo Unidos por el Canal, S.A. Building 22B, Brujas Road Cocoli, Republic of Panama	507-316-9900
	8. CONTRACTOR'S FACSIMILE NUMBER:

9. VARIATION:

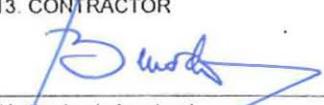
- The contract referred to in item No. 2 is hereby varied as set forth in item 10, entitled "DESCRIPTION OF VARIATION".
 YES. NO. The contractor shall send a copy, duly signed, of this Variation to the Employer's Representative/Contracting Officer.

	9 A. THIS VARIATION IS EXECUTED ON THE BASIS OF: (Specify the legal authority). THE VARIATION DESCRIBED IN ITEM 10 IS HEREBY INCORPORATED AND MADE A PART OF THE CONTRACT.
	9 B. THE CONTRACT REFERRED TO IN ITEM NO. 2, IS VARIED TO INCORPORATE ADMINISTRATIVE CHANGES (such as the paying office, account numbers, etc.)
X	9 C. THIS BILATERAL AGREEMENT IS SIGNED AND INCORPORATED INTO THE CONTRACT REFERRED TO IN ITEM NO. 2 OF THIS FORM, ON THE BASIS OF: (Specify the legal authority) Volume III, Conditions of Contract, Sub-Clause 1.16 [Entire Agreement].
	9 D. OTHER (Specify manner and the legal authority)
	9 E. ACCOUNT NUMBER (If required):

10. DESCRIPTION OF THE VARIATION (List in accordance with the order of the Contract. If additional space is required, use blank sheets)

See attached

Except for the variation(s) herein specified, all other terms and conditions of the Contract remain unchanged.

11. NAME AND TITLE OF THE PERSON AUTHORIZED TO SIGN (Type or print)	12. NAME AND TITLE OF THE EMPLOYER'S REPRESENTATIVE/CONTRACTING OFFICER (Type or print)		
Bernardo Gonzalez Contractor's Representative	Cheryl George, Employer's Representative Delegee		
13. CONTRACTOR	14. DATE:	15. PANAMA CANAL AUTHORITY	16. DATE:
 (Authorized signature)	21/07/2012	 (Employer's Representative/Contracting Officer's signature)	22/Jun/2012

Variation No. 41 is issued to incorporate the following change:

1. **Volume II, Part 1, Section 40 95 13.13 [Process Control Hardware for LMCS]** - Delete Paragraph 1.04 H.3.d entirely and replace it with the following:

“d. Reserved” (RFV-110)

2. **Volume II, Part 1, Section 01 81 26 [Communication, Control, Safety & Security Systems]** - Delete Paragraph 1.03.K.11.b entirely and replace it with the following:

“b. *Allowed exceptions to this requirement are:*

1. *FOMs in accordance with Section 27 21 00 [Data Communications Equipment], to reduce possible common mode failure (CMF) using technology diversity.*
2. *PLC controllers with memory of different sizes in accordance with Section 40 94 43 [Programmable Logic Controllers]. The entire family of the latest Rockwell Automation ControlLogix platform that meets the ER is acceptable.”* (RFV-115)

3. **Volume II, Part 2, Section 40 94 43 [Programmable Logic Controllers (PLCs)]** - Delete Paragraph 1.03.A.1.b entirely and replace it with the following:

“b. *On the take-over date, PLCs and RIOs shall have been field proven for at least two years (excluding beta testing period).”* (RFV-115)

4. **Volume II, Part 2, Section 40 94 43 [Programmable Logic Controllers (PLCs)]** - Delete Paragraph 1.03.A.2 entirely and replace it with the following:

“2. Certifications:

- a. *The Employer prefers that PLC manufacturer have valid ISO 20000 certification to ensure an ITIL style help desk.*
- b. *All applicable SIL certifications for PLCs shall be issued prior to the take-over date.”* (RFV-115)

5. **Volume II, Part 2, Section 40 94 43 [Programmable Logic Controllers (PLCs)]** - Delete Paragraph 1.03.B.3.b entirely and replace it with the following:

“b. *The PLC processor memory shall be twice the maximum estimated for the functions assigned or 2 MB, whichever is the largest.”* (RFV-115)



6. **Volume II, Part 2, Section 40 94 43 [Programmable Logic Controllers (PLCs)]** - Delete Paragraph 1.03.B.3.c entirely and replace it with the following:

“c. *PLCs shall save data in compact flash, SDRAM, or other standard non-volatile memory type so that data is not lost in case of energy failure.*” (RFV-115)

7. **Volume II, Part 2, Section 40 94 43 [Programmable Logic Controllers (PLCs)]** - Add new Paragraph 1.03.B.3.d as follows:

“d. *Processor paralleling is unacceptable to achieve the required memory size.*” (RFV-115)

8. **Volume II, Part 2, Section 40 96 45 [Process Control Software]** - Delete Paragraph 1.03 D.1 entirely and replace it with the following:

“1. *PCs shall interoperate with the Employer’s CMMS (or EAMS) and shall include RS Transaction Manager to pass information using data base transaction triggers, and other Rockwell software as required. Interconnection between CMMS and new PCs shall be via Ethernet ports in access concentrators in the new locks (Ref. Section 27 21 00, Par. 1.03 A. 3. d.) with access to the Employer intranet.*” (RFV-110)

There is no time or cost impact to the Locks Contract as a consequence of this Variation.

